IN THE CLAIMS:

Amend the claims as follows.

Claims 1-32. (Canceled)

33. (New) A method of producing an essentially pure population of astrocytes which are essentially free of microglial cells, the method comprising:

a) preparing a mixture of astrocytes and microglial cells by dissociation of tissue obtained by surgical resection from a patient, and introducing the prepared mixture of astrocytes and microglial cells to a culture vessel,

b) incubating the prepared mixture of astrocytes and microglial cells from step a) under conditions enabling attachment of the astrocytes to the culture vessel, and

c) removing cells which have not attached to the culture vessel at a time of about 48 hours from the introduction of the prepared mixture of astrocytes and microglial cells to the culture vessel.

34. (New) The method according to claim 33, wherein the astrocytes are human astrocytes.

35. (New) The method according to claim 34, wherein the human astrocytes are human adult astrocytes.

36. (New) The method according to claim 33, wherein unattached cells are removed from the culture vessel by a change of culture media.

37. (New) The method according to claim 33, further comprising a step d) of introducing a nucleic acid into the astrocytes.

38. (New) The method according to claim 37, wherein the nucleic acid is introduced into the astrocytes with a viral vector.

39. (New) The method according to claim 38, wherein the viral vector is selected from the group consisting of adenovirus, Herpes virus, AAV, retrovirus ad vaccinia virus.

40. (New) The method according to claim 39, wherein the viral vector is a replication defective adenoviral vector.

41. (New) The method according to claim 37, wherein the nucleic acid is introduced into the astrocytes by calcium-phosphate precipitation, liposome-mediated transfection, cationic lipid transfection, or lipopolyamine-mediated transfection.

42. (New) The method according to claim 37, wherein the nucleic acid encodes a neuroactive substance.

43. (New) An essentially pure population of astrocytes produced by the method according to claim 33.